United States Department of Agriculture

Agricultural Research Service

Pacific West Area

May 10, 1994

Subject: Review of Bay-Delta Oversight Council Report

To: Mr. Steve Yaeger, Deputy Executive Officer

From: Lars Anderson, RL

Per your request, I have reviewed the subject Report and provided some specific technical comments in the preceding memo. More general, subjective comments follow according to your suggested format, including perspectives of this Agency.

The USDA- Agricultural Research Service has two research units focusing on management of aquatic weeds: UC Davis, and Ft. Lauderdale, FL. Both laboratories conduct basic and applied research on aquatic weeds that cause economic losses and impair species diversity. The primary target weeds at the Davis laboratory are: *Hydrilla verticillata, Eichhornia crassipes, Myriophyllum spicatum, Potamogeton* spp. and *Egeria densa* (Brazilian elodea). These species infest lakes, natural rivers and other waterways throughout most of the US. Current research approaches include biological as well as herbicidal and water-level management.

Research and technology-transfer areas most related to the Delta include (1) cooperative research and water-quality monitoring as part of the California Dept. of Boating and Waterways Waterhyacinth Control Program; (2) studies on the biology and control of hydrilla (a major threat to the Delta waterways); (3) recently initiated research on biology and control of egeria (*E. densa*); (4) cooperative research with California Dept. of Food and Agriculture (CDFA) on hydrilla and biological control of waterhyacinth.

Due to these and other broad-based mission objectives to sustain species diversity and improve aquatic habitats, ARS research activities would appear to complement and partially address specific objectives of the Bay-Delta Oversight Council. The scientists and technicians at the ARS-Davis Aquatic Weed Laboratory could provide technical input on a number of issues relating to exotic and native

aquatic plants. We have had a research and advisory role in several state/federal action-oriented programs centered on the management of two important species: hydrilla and waterhyacinth. This type of interaction is now developing with the explosion of *Egeria densa.*

From a programmatic and administrative standpoint, I was surprised that the Boating and Waterways Department was not among the Council participants (unless this has changed recently). That state agency has been the lead in the waterhyacinth control program since the early 1980's. Its activities directly focus on reduction of problematic populations of waterhyacinth via its herbicide program, educational activities and multi-agency coordination role ("Waterhyacinth Control Task Force"). It would seem essential to include the agency within the scope of the Council.

With the breadth of the mission and objectives of the Council, it would seem that taping into all available resource will provide the best opportunity for accomplishing Council goals. Your initial draft and the review process should help fill in remaining gaps in this respect.

Finally, from a research perspective, I see three major needs: (1) Increased systems-level approach to answering questions related to "fixing" the Delta; and (2) efficient research coordination across federal , state, university and private groups; and (3) current vegetation surveys coupled with the generation of GPS/GIS to establish a "baseline" so that future research can be planned and executed efficiently and effectively. It would appear that this could be accomplished under the auspices of the Council when all pertinent groups are included.

I look forward to hearing from you about the progress and activities of the Council.



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